LYNCHBURG CITY COUNCIL
Agenda Item Summary

MEETING DATE: **July 11, 2006, Work Session**		AGENDA ITEM NO.: 2
CONSENT:	REGULAR: **X**	CLOSED SESSION: (Confidential)
ACTION:	INFORMATION: **X**	

ITEM TITLE: **Update on the "Midtown Connector" Project**

RECOMMENDATION: As noted below.

SUMMARY: Council will be briefed on the "Midtown Connector" project during its work session. The following points will be reviewed.

- Update of the results of the VDOT traffic counts in the corridor and results of their analysis and impact on the project.
- Design considerations as a result of the VDOT traffic analysis, including issues with the railroad bridge/tunnel, drainage, coordination with CSO activities, water utilities replacement and electrical utility relocation or burial.
- Status of meeting with Central Health and tie into their Master Plan
- An overview of the proposed Lakeside Centre development and traffic planning considerations at the 501/221 intersection.
- Designation of a Project Manager
- The City Manager will continue to brief major stakeholders as the project evolves.

PRIOR ACTION (S): September 13, 2005 Work Session

FISCAL IMPACT: Undetermined at this time

CONTACT (S): Kimball Payne, 455-3990

ATTACHMENT (S): VDOT traffic analysis and forecast
Virginia Tech design concept "Medical Arts District Corridor of Confidence"
501/221 Intersection Concept

REVIEWED BY: lkp

City of Lynchburg
Mid Town Connector
U000-118-V09, PE101, C501, B616, R201, R202 – UPC 8759
Traffic Forecast
May 18, 2006

Traffic analysis and forecast for the Lynchburg Mid-town Connector Phase I (Kemper Street/Park Avenue Corridor) between Route 29 Business (Lynchburg Expressway) and Route 501 Business (Langhorne Road) were developed with 2005 traffic count information as the base year. In using the Urban Traffic Forecast (travel demand) Model developed for the Lynchburg Metropolitan Planning Organization's Long Range Transportation Plan traffic was forecasted to the Year 2030. Anticipated future traffic generations provided by the City of Lynchburg for the development of the Mid-Town Area (Plaza and Centre Health Complex) along with the proposed development of areas adjacent to the Route 501 (Lynchburg Expressway/Old Forest Road) and Route 221 (Lakeside Drive) were factored into the Year 2030 traffic projections. The 2000 edition of the Highway Capacity Software and micro-simulation model Synchro 6 were used to determine the Level of Service (LOS) for both AM and PM Peak Hour time periods for both the corridor's roadway segments and its intersections. Traffic forecast information was generated for the (1) Base Year (2005), (2) Forecast Year (2030) also known as the No-Build Option, and (3) Three-Year 2030 Build Option Alternatives (Five Lane section, Four Lane section, and Five Lane section with no improvements to the Kemper/Park/Fort intersection).

Base Year 2005

The 2005 Base Year traffic volumes along the Kemper Street/Park Avenue Corridor (Mid-town Connector) increases from 8000 Average Daily Volume (ADT) to 15,100 ADT as you progress eastward from Langhorne Road to the Lynchburg Expressway Interchange. Percent truck volumes also varies between 3% and 5 % along the corridor. [Map 1]

Based on travel speed through the corridor, the Base Year Arterial LOS is C or better with the exception of the segment of Kemper Street between 12th Street and Fort Avenue, which has a LOS of D for West (in-bound) traffic. Intersection level of services operates at a LOS of B or better.

Year 2030 No-Build

The Forecast Year 2030 (No-Build) traffic volumes along the Mid-town Connector increase from 10, 300 ADT to 17,100 ADT as you progress eastward. The percent truck volumes remain unchanged from the base year. [Map 1]

Based on modeled travel speeds through the corridor and no roadway improvements, the Arterial LOS is C or better with the exception of Kemper Street between 12th Street and Fort Avenue for both AM and PM peak hours, and Park Avenue West Bound between Fort Avenue and Langhorne Road at PM peak hour that operate at a LOS D. Modeled Year 2030 Intersection level of service along the corridor operates at a LOS C or better.

Year 2030 Build Alternatives

The 2030 Build scenario is based on traffic generated from the construction of a four lane corridor over the entire "original" Lynchburg Cross Town Connector project that began at the Kemper Street/Route 29 Business (Lynchburg Expressway) interchange and ended at the Lakeside Drive/Route 501 (Lynchburg Expressway) intersection. All build alternatives were analyzed with no restrictive left turn movements at intersections.

The Forecast Year 2030 Build Alternative(s) traffic volumes along the Mid-town Connector increase from 12,400 ADT to 19,400 ADT as you progress eastward. No change in the base year percent truck volumes was assumed. [Map 1]

- **Alternative 1: Five-Lane (Two Way Left Turn Lanes) Roadway Cross Section**
  Based on modeled travel speeds through the corridor, the Arterial LOS is C or better for both AM and PM peak hour periods. Modeled Year 2030 Intersection level of service along the corridor operates at a LOS of A with the exception of the Intersection of Kemper/Park Fort that has a PM peak hour LOS of B.

- **Alternative 2: Alternative 1 Roadway Cross Section with the restriction of a Four Lane Section at the Intersection of Kemper/Park/Fort**
  Based on modeled travel speeds through the corridor, the Arterial LOS is C or better for both AM and PM peak hour periods. Modeled Year 2030 Intersection level of service along the corridor operates at a LOS of B or better.

- **Alternative 3: Alternative 1 Roadway Cross Section with existing lane configuration at the Intersection of Kemper/Park/Fort**
  Based on modeled travel speeds through the corridor, the Arterial LOS is D for West Bound AM and PM peak hours on Kemper Street between Fort Avenue and 12th Street, and East Bound PM peak hour on Park Avenue between Fort Avenue and Langhorne Road. All other roadway segments operated at a LOS of C or better. Modeled Year 2030 Intersection level of service along the corridor operates at a LOS of B or better.

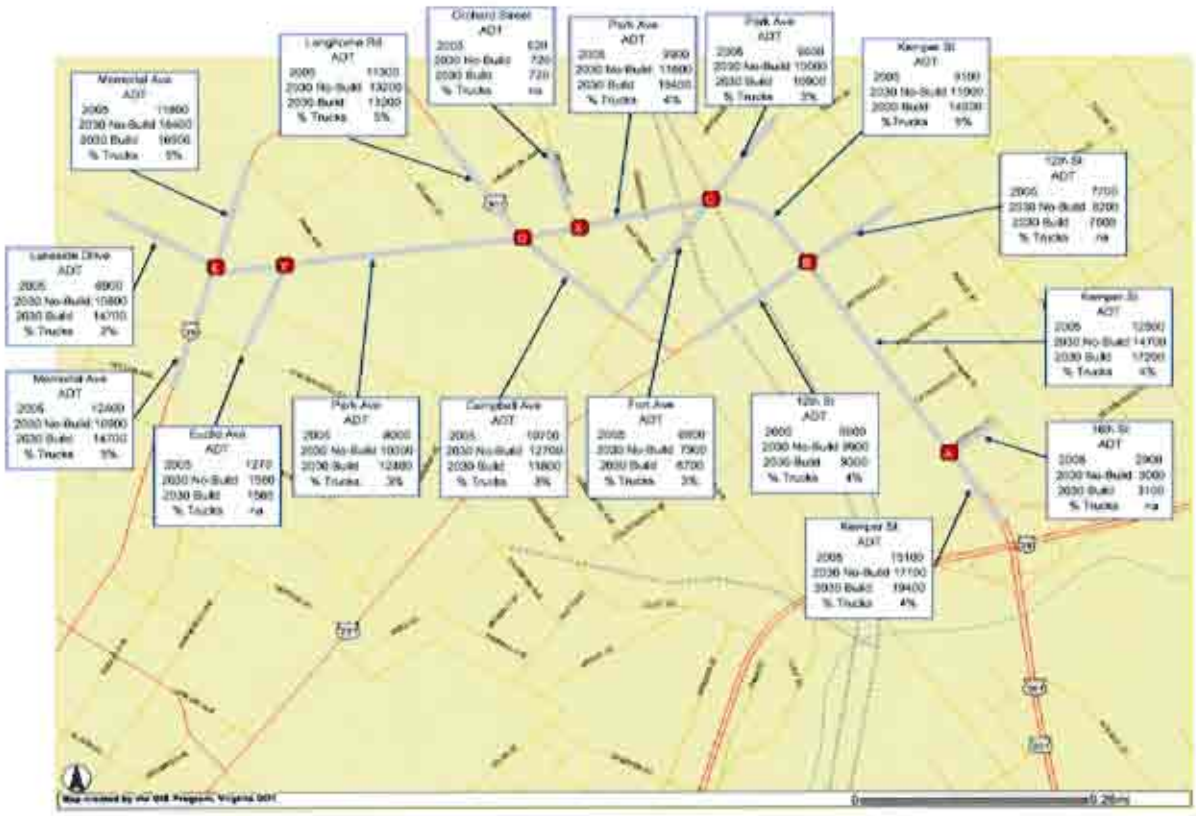
Attachments

Traffic Forecast provided by VDOT-TMPD and Lynchburg District Transportation Planning Engineer, Jeffery B. Kessler.

Reported by Jeffery B. Kessler, May 18, 2006.

Lynchburg City
Mid-town Connector Phase 1
Traffic Forecast

May10, 2009



May 10, 2006

Lynchburg City
Mid Town Connector Phase I
Arterial LOS

2005 AM / 2005 PM

Street Name	Signalized Intersections Cross Streets		Arterial Speed (mph) West Bound	Arterial Speed (mph) East Bound	Level of Sevice West Bound	Level of Sevice East Bound	Arterial Speed (mph) West Bound	Arterial Speed (mph) East Bound	Level of Sevice West Bound	Level of Sevice East Bound
Kemper St	16th Street	12th Street	25	27	B	B	25	26	B	B
Kemper St	12th Street	Fort Ave	15	21	D	C	17	21	D	C
Park Ave	Fort Ave	Langhorne Rd	23	25	C	B	22	21	C	C
Park Ave	Langhorne Rd	Memorial Ave	22	24	C	B	23	21	C	C

Posted Speed = 30 mph Arterial Class III

2030 AM No-Build / 2030 PM No-Build

Street Name	Signalized Intersections Cross Streets		Arterial Speed (mph) West Bound	Arterial Speed (mph) East Bound	Level of Sevice West Bound	Level of Sevice East Bound	Arterial Speed (mph) West Bound	Arterial Speed (mph) East Bound	Level of Sevice West Bound	Level of Sevice East Bound
Kemper St	16th Street	12th Street	24	27	C	B	26	24	B	B
Kemper St	12th Street	Fort Ave	17	21	D	C	16	20	D	C
Park Ave	Fort Ave	Langhorne Rd	23	26	C	B	16	22	D	C
Park Ave	Langhorne Rd	Memorial Ave	22	25	C	B	23	19	C	C

Posted Speed = 30 mph Arterial Class III

2030 AM Build Alt. 1 (5-Lane) / 2030 PM Build Alt. 1 (5-Lane)

Street Name	Signalized Intersections Cross Streets		Arterial Speed (mph) West Bound	Arterial Speed (mph) East Bound	Level of Sevice West Bound	Level of Sevice East Bound	Arterial Speed (mph) West Bound	Arterial Speed (mph) East Bound	Level of Sevice West Bound	Level of Sevice East Bound
Kemper St	16th Street	12th Street	24	27	B	B	25	26	B	B
Kemper St	12th Street	Fort Ave	19	24	C	C	19	24	C	B
Park Ave	Fort Ave	Langhorne Rd	27	24	B	B	26	20	B	C
Park Ave	Langhorne Rd	Memorial Ave	25	27	B	B	25	24	B	C

Posted Speed = 30 mph Arterial Class III

2030 AM Build Alt. 2 (4-Lane Mod) / 2030 PM Build Alt. 2 (4-Lane Mod.)

Street Name	Signalized Intersections Cross Streets		Arterial Speed (mph) West Bound	Arterial Speed (mph) East Bound	Level of Sevice West Bound	Level of Sevice East Bound	Arterial Speed (mph) West Bound	Arterial Speed (mph) East Bound	Level of Sevice West Bound	Level of Sevice East Bound
Kemper St	16th Street	12th Street	24	27	B	B	26	26	B	B
Kemper St	12th Street	Fort Ave	18	24	C	C	19	24	C	C
Park Ave	Fort Ave	Langhorne Rd	25	23	B	C	18	20	C	C
Park Ave	Langhorne Rd	Memorial Ave	25	25	B	B	25	19	B	C

Posted Speed = 30 mph Arterial Class III

2030 AM Build Alt. 3 (4-3 Lane) / 2030 PM Build Alt. 3 (4-3 Lane)

Street Name	Signalized Intersections Cross Streets		Arterial Speed (mph) West Bound	Arterial Speed (mph) East Bound	Level of Sevice West Bound	Level of Sevice East Bound	Arterial Speed (mph) West Bound	Arterial Speed (mph) East Bound	Level of Sevice West Bound	Level of Sevice East Bound
Kemper St	16th Street	12th Street	24	27	C	B	24	26	B	B
Kemper St	12th Street	Fort Ave	16	22	D	C	17	23	D	C
Park Ave	Fort Ave	Langhorne Rd	19	24	C	B	18	17	C	D
Park Ave	Langhorne Rd	Memorial Ave	26	25	B	B	25	19	B	C

Posted Speed = 30 mph Arterial Class III

Lynchburg City
Mid Town Connector Phase I
2005 Base Year
Intersection LOS

Base Year 2005 AM Peak

Intersection A - Kemper Street and 16th Street

Street Name	Kemper Street	Kemper Street	Bus Entrance	16th Street
Approach Direction	SE	NW	NE	SW
Approach LOS	A	A	A	C
Movement LOS	LT TR	LT R	LTR	LTR
	A	A A	A	C

Intersection LOS A

Intersection B - Kemper Street and 12th Street

Street Name	Kemper Street	Kemper Street	12th Street	12th Street
Approach Direction	SE	NW	NE	SB
Approach LOS	A	A	B	B
Movement LOS	L TR	L TR	L T R	L TR
	A A	A A	B C B	B B

Intersection LOS B

Intersection C - Kemper Street and Fort Ave

Street Name	Park Ave	Kemper Street	Fort Ave	Park Ave
Approach Direction	EB	WB	NB	SB
Approach LOS	A	B	A	A
Movement LOS	L TR	L T R	LTR	T R
	A A	A B A	A	A A

Intersection LOS B

Intersection D - Langhorne Road and Park Ave

Street Name	Park Ave	Park Ave	Campbell Ave	Langhorne Road
Approach Direction	EB	WB	NB	SB
Approach LOS	A	A	A	A
Movement LOS	LTR	TR	L TR	TR
	A	A	A A	A

Intersection LOS A

Base Year 2005 PM Peak

Intersection A - Kemper Street and 16th Street

Street Name	Kemper Street	Kemper Street	Bus Entrance	16th Street
Approach Direction	SE	NW	NE	SW
Approach LOS	A	A	B	C
Movement LOS	LT TR	LT R	LTR	LTR
	A	A A	B	C

Intersection LOS A

Intersection B - Kemper Street and 12th Street

Street Name	Kemper Street	Kemper Street	12th Street	12th Street
Approach Direction	SE	NW	NE	SB
Approach LOS	A	A	B	B
Movement LOS	L TR	L TR	L T R	L TR
	A A	A A	B B B	B B

Intersection LOS B

Intersection C - Kemper Street and Fort Ave

Street Name	Park Ave	Kemper Street	Fort Ave	Park Ave
Approach Direction	EB	WB	NB	SB
Approach LOS	A	A	A	A
Movement LOS	L TR	L T R	LTR	T R
	A A	A B A	A	A A

Intersection LOS A

Intersection D - Langhorne Road and Park Ave

Street Name	Park Ave	Park Ave	Campbell Ave	Langhorne Road
Approach Direction	EB	WB	NB	SB
Approach LOS	B	A	A	B
Movement LOS	LTR	TR	L TR	TR
	B	A	A A	B

Intersection LOS B

Lynchburg City
Mid Town Connector
2030 No-Build
Intersection LOS

2030 No-Build AM Peak

Intersection A - Kemper Street and 16th Street

Street Name	Kemper Street	Kemper Street	Bus Entrance	16th Street
Approach Direction	SE	NW	NE	SW
Approach LOS	A	A	A	C
Movement LOS	LT TR	LT R	LTR	LTR
	A	A A	A	C

Intersection LOS A

Intersection B - Kemper Street and 12th Street

Street Name	Kemper Street	Kemper Street	12th Street	12th Street
Approach Direction	SE	NW	NE	SB
Approach LOS	A	A	B	B
Movement LOS	L TR	L TR	L T R	L TR
	A A	A A	B C B	B B

Intersection LOS B

Intersection C - Kemper Street and Fort Ave

Street Name	Park Ave	Kemper Street	Fort Ave	Park Ave
Approach Direction	EB	WB	NB	SB
Approach LOS	A	A	B	A
Movement LOS	L TR	L T R	LTR	T R
	A A	A A A	B	B A

Intersection LOS A

Intersection D - Langhorne Road and Park Ave

Street Name	Park Ave	Park Ave	Campbell Ave	Langhorne Road
Approach Direction	EB	WB	NB	SB
Approach LOS	A	A	B	B
Movement LOS	LTR	TR	L TR	TR
	A	A	B B	B

Intersection LOS B

2030 No-Build PM Peak

Intersection A - Kemper Street and 16th Street

Street Name	Kemper Street	Kemper Street	Bus Entrance	16th Street
Approach Direction	SE	NW	NE	SW
Approach LOS	A	A	B	C
Movement LOS	LT TR	LT R	LTR	LTR
	A	A A	B	C

Intersection LOS A

Intersection B - Kemper Street and 12th Street

Street Name	Kemper Street	Kemper Street	12th Street	12th Street
Approach Direction	SE	NW	NE	SB
Approach LOS	A	A	B	B
Movement LOS	L TR	L TR	L T R	L TR
	A A	A A	B B B	B C

Intersection LOS A

Intersection C - Kemper Street and Fort Ave

Street Name	Park Ave	Kemper Street	Fort Ave	Park Ave
Approach Direction	EB	WB	NB	SB
Approach LOS	A	B	B	B
Movement LOS	L TR	L T R	LTR	T R
	A A	A B A	B	B A

Intersection LOS B

Intersection D - Langhorne Road and Park Ave

Street Name	Park Ave	Park Ave	Campbell Ave	Langhorne Road
Approach Direction	EB	WB	NB	SB
Approach LOS	C	B	A	B
Movement LOS	LTR	TR	L TR	TR
	C	B	B A	B

Intersection LOS C

Lynchburg City
Mid Town Connector
2030 Build Alt. 1
Intersection LOS

2030 Build Alt. 1 5-Lane AM Peak

Intersection A - Kemper Street and 16th Street

Street Name	Kemper Street	Kemper Street	Bus Entrance	16th Street
Approach Direction	SE	NW	NE	SW
Approach LOS	A	A	A	C
Movement LOS	LT TR	LT TR	LTR	L TR
	A	A	A	C B

Intersection LOS A

Intersection B - Kemper Street and 12th Street

Street Name	Kemper Street	Kemper Street	12th Street	12th Street
Approach Direction	SB	NW	NE	SB
Approach LOS	A	A	B	B
Movement LOS	LT TR	L TR	L T R	L TR
	A	A A	B B B	B B

Intersection LOS A

Intersection C - Kemper Street and Fort Ave

Street Name	Park Ave	Kemper Street	Fort Ave	Park Ave
Approach Direction	EB	WB	NB	SB
Approach LOS	A	A	A	A
Movement LOS	L TR	L TR	L T R	L T R
	A A	A A	A A A	A A A

Intersection LOS A

Intersection D - Langhorne Road and Park Ave

Street Name	Park Ave	Park Ave	Campbell Ave	Langhorne Road
Approach Direction	EB	WB	NB	SB
Approach LOS	A	A	B	A
Movement LOS	L TR	L TR	L TR	L TR
	A A	A A	A B	A A

Intersection LOS A

2030 Build Alt. 1 5-Lane PM Peak

Intersection A - Kemper Street and 16th Street

Street Name	Kemper Street	Kemper Street	Bus Entrance	16th Street
Approach Direction	SE	NW	NE	SW
Approach LOS	A	A	B	B
Movement LOS	LT TR	LT TR	LTR	L TR
	A	A	B	B B

Intersection LOS A

Intersection B - Kemper Street and 12th Street

Street Name	Kemper Street	Kemper Street	12th Street	12th Street
Approach Direction	SB	NW	NE	SB
Approach LOS	A	A	B	B
Movement LOS	LT TR	L TR	L T R	L TR
	A	A A	B B B	B B

Intersection LOS A

Intersection C - Kemper Street and Fort Ave

Street Name	Park Ave	Kemper Street	Fort Ave	Park Ave
Approach Direction	EB	WB	NB	SB
Approach LOS	B	A	A	A
Movement LOS	L TR	L TR	L T R	L T R
	B B	A A	A A A	A A A

Intersection LOS B

Intersection D - Langhorne Road and Park Ave

Street Name	Park Ave	Park Ave	Campbell Ave	Langhorne Road
Approach Direction	EB	WB	NB	SB
Approach LOS	B	A	B	A
Movement LOS	L TR	L TR	L TR	L TR
	A B	A A	A A	A A

Intersection LOS A

Lynchburg City
Mid Town Connector
2030 Build Alt. 2
Intersection LOS

2030 Build Alt. 2 4-Lane AM Peak

Intersection A - Kemper Street and 16th Street

Street Name	Kemper Street	Kemper Street	Bus Entrance	16th Street
Approach Direction	SE	NW	NE	SW
Approach LOS	A	A	A	C
Movement LOS	LT TR	LT TR	LTR	L TR
	A	A	A	C B

Intersection LOS A

Intersection B - Kemper Street and 12th Street

Street Name	Kemper Street	Kemper Street	12th Street	12th Street
Approach Direction	SB	NW	NE	SB
Approach LOS	A	A	B	B
Movement LOS	LT TR	L TR	L T R	L TR
	A	A A	B B B	B B

Intersection LOS A

Intersection C - Kemper Street and Fort Ave

Street Name	Park Ave	Kemper Street	Fort Ave	Park Ave
Approach Direction	EB	WB	NB	SB
Approach LOS	A	A	A	A
Movement LOS	LT TR	LT TR	L TR	L T R
	A	A	A A	A A A

Intersection LOS A

Intersection D - Langhorne Road and Park Ave

Street Name	Park Ave	Park Ave	Campbell Ave	Langhorne Road
Approach Direction	EB	WB	NB	SB
Approach LOS	A	A	B	B
Movement LOS	L T R	L T R	L TR	L TR
	A A A	A A A	B B	B B

Intersection LOS A

2030 Build Alt. 2 4-Lane PM Peak

Intersection A - Kemper Street and 16th Street

Street Name	Kemper Street	Kemper Street	Bus Entrance	16th Street
Approach Direction	SE	NW	NE	SW
Approach LOS	A	A	B	C
Movement LOS	LT TR	LT TR	LTR	L TR
	A	A	B	C B

Intersection LOS A

Intersection B - Kemper Street and 12th Street

Street Name	Kemper Street	Kemper Street	12th Street	12th Street
Approach Direction	SB	NW	NE	SB
Approach LOS	A	A	B	B
Movement LOS	LT TR	L TR	L T R	L TR
	A	A A	B B B	B B

Intersection LOS A

Intersection C - Kemper Street and Fort Ave

Street Name	Park Ave	Kemper Street	Fort Ave	Park Ave
Approach Direction	EB	WB	NB	SB
Approach LOS	B	A	B	B
Movement LOS	LT TR	LT TR	L TR	L TR
	B	A	B B	B B

Intersection LOS B

Intersection D - Langhorne Road and Park Ave

Street Name	Park Ave	Park Ave	Campbell Ave	Langhorne Road
Approach Direction	EB	WB	NB	SB
Approach LOS	B	A	A	A
Movement LOS	L T R	L T R	L TR	L TR
	A B B	A B A	A A	A A

Intersection LOS B

May 10, 2006

Lynchburg City
Mid Town Connector
2030 Build Alt. 3
Intersection LOS

2030 Build Alt. 3 4-3 Lane AM Peak

Intersection A - Kemper Street and 16th Street

Street Name	Kemper Street	Kemper Street	Bus Entrance	16th Street
Approach Direction	SE	NW	NE	SW
Approach LOS	A	A	A	C
Movement LOS	LT TR	LT TR	LTR	L TR
	A	A	A	C B

Intersection LOS A

Intersection B - Kemper Street and 12th Street

Street Name	Kemper Street	Kemper Street	12th Street	12th Street
Approach Direction	SB	NW	NE	SB
Approach LOS	A	A	B	B
Movement LOS	LT TR	L TR	L T R	L TR
	A	A A	B B B	B B

Intersection LOS B

Intersection C - Kemper Street and Fort Ave

Street Name	Park Ave	Kemper Street	Fort Ave	Park Ave
Approach Direction	EB	WB	NB	SB
Approach LOS	A	B	C	C
Movement LOS	LT TR	LT TR	L TR	L TR
	A	A A	C C	C C

Intersection LOS B

Intersection D - Langhorne Road and Park Ave

Street Name	Park Ave	Park Ave	Campbell Ave	Langhorne Road
Approach Direction	EB	WB	NB	SB
Approach LOS	A	B	B	A
Movement LOS	L T R	L T R	L TR	L TR
	A A A	A B C	A B	A A

Intersection LOS A

2030 Build Alt. 3 4-3 Lane PM Peak

Intersection A - Kemper Street and 16th Street

Street Name	Kemper Street	Kemper Street	Bus Entrance	16th Street
Approach Direction	SE	NW	NE	SW
Approach LOS	A	A	B	C
Movement LOS	LT TR	LT TR	LTR	L TR
	A	A	B	C B

Intersection LOS A

Intersection B - Kemper Street and 12th Street

Street Name	Kemper Street	Kemper Street	12th Street	12th Street
Approach Direction	SB	NW	NE	SB
Approach LOS	A	A	B	B
Movement LOS	LT TR	L TR	L T R	L TR
	A	A A	B B B	B C

Intersection LOS B

Intersection C - Kemper Street and Fort Ave

Street Name	Park Ave	Kemper Street	Fort Ave	Park Ave
Approach Direction	EB	WB	NB	SB
Approach LOS	B	A	B	B
Movement LOS	L TR	L TR	L TR	L TR
	A B	A A	B B	B C

Intersection LOS B

Intersection D - Langhorne Road and Park Ave

Street Name	Park Ave	Park Ave	Campbell Ave	Langhorne Road
Approach Direction	EB	WB	NB	SB
Approach LOS	B	B	A	B
Movement LOS	L T R	L T R	L TR	L TR
	A B A	A B A	B A	A B

Intersection LOS B